Quick User Manual

SG3KTL-EC / SG4KTL-EC/

SG5KTL-EC / SG6KTL-EC

PV Grid-Connected Inverter

SG3_4_5_6KTL-EC-QUEN-Ver13-201409 Version：1.3

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Notice

The contents of the manual will be periodically updated or revised due to the product development. Specifications are subject to changes without advance notice!

The latest manual can be acquired via www.sungrowpower.com.

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About this manual

This quick user manual provides a general instruction required for installing, wiring, commissioning and operating the SG3KTL-EC, SG4KTL-EC, SG5KTL-EC, and SG6KTL-EC inverters.

SG3KTL-EC, SG4KTL-EC, SG5KTL-EC, and SG6KTL-EC will be referred to as inverter hereinafter unless otherwise specified.

For further instructions on installing or operating, please refer to the detailed user manual which you can require on the package CD or via www.sungrowpower.com.

To prevent personal injury or material damage, the inverter must be installed, operated, maintained and serviced only by **qualified personnel**:

- They must be trained specially;
- They have already read over and understood the manual and other related documents;
- They have been familiar with safety requirements for electrical system and local safety-related guidelines.

The contents of the manual will be periodically updated or revised due to the product development. Specifications are subject to changes without advance notice!

The latest manual can be acquired via www.sungrowpower.com.

NOTICE

- **In no case shall this manual substitute for the user manual or related notes on the devices.**
- **Any violation could result in personal death or injury or device damage.**

Keep this manual in a convenient place for future reference.

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1 Safety Instructions

1.1 Symbols Explanation

Important instructions contained in this manual should be followed during installation, operation and maintenance of the inverter. And they will be highlighted by the following symbols.

DANGER

DANGER indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a hazard with a medium level of risk which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE indicates a situation which, if not avoided, could result in equipment or property damage.

NOTE indicates additional information, emphasized contents or tips to help you solve problems or save time.

1.2 Symbols on the Inverter Body

	Disconnect the inverter from mains and PV generator before service!
	Do not touch any inner live parts until 10 minutes after disconnection from the utility grid and the PV input.
	Hot surface! In order to reduce the risk of burns, do not touch the hot surface when the device is running.
	Look over the user manual before any operation on the inverter!
	The installation and service of the inverter unit can only be performed by qualified personnel.

1.3 Important Safety Instructions

The inverter has been designed and tested strictly according to the international safety regulations. As electrical and electronic equipments, safety instructions related to them must be complied with during installation, operation and maintenance.

The following safety instructions must be read and kept in mind prior to any work.

Before Installation

⚠ CAUTION

There is a risk of injury due to improperly handling the device!

- **Always follow the instructions contained in the manual when moving and positioning the inverter.**
- **The weight of the equipment can cause injuries, serious wounds, or bruise if improperly handled.**

During Installation

DANGER

Prior to installing the inverter onto the wall, it is crucial to make certain that the inverter is not electrically connected.

CAUTION

System performance loss due to bad ventilation!

The device requires good quality ventilation during operation. It is essential to keep the unit upright and nothing covering the heat sink in order to ensure that the device interior is well cooled down.

During Electrical Connection

DANGER

PV arrays will produce electrical energy when exposed to sunlight and thus can create an electrical shock hazard.

- **Wiring of the PV arrays should be performed only by qualified personnel.**
- **PV modules should be covered by opaque materials during wiring.**

NOTICE

All electrical connections must be in accordance with local and national standards.

Only with the permission of the local energy sector, the inverter can be connected into the utility grid.

WARNING

All cables must be firmly attached, undamaged, properly insulated and adequately dimensioned.

During Inverter Operation

Do not open the enclosure when the inverter is under voltage. There is an unlikely but possible risk of explosion in very specific cases of malfunction. The enclosure will protect persons and property from such an explosion, only if it is correctly sealed.

⚠ DANGER

There is a risk of inverter damage or personal injury!

Do NOT disconnect DC connectors while the inverter is under AC load! First de-energize the equipment from dual power sources and then verify that there is no voltage present.

⚠ CAUTION

There is a risk of burn!

DO NOT touch the device hot parts (such as heat sink) during operation. Only LCD display panel and DC switch can be touched during inverter operation.

Maintenance and Service

⚠ DANGER

Before any service work, you should obey the following procedures.

- **Disconnect inverter from the utility grid first and then PV arrays;**
- **Wait at least 10 minutes until the inner capacitors discharge completely;**
- **Verify that no voltage or current is present with appropriate testing device.**

⚠ CAUTION

Keep non-related persons away!

A temporary warning sign and barrier must be posted to keep non-related persons away in any period while performing electrical connection and service work.

NOTICE

- **Any malfunction that may impair the inverter safety functions must be repaired immediately before the inverter is restarted.**
- **Inverter contains no owner serviceable parts inside. Please contact local authorized personnel if any service work is required.**

Servicing of the device in accordance with the manual should never be undertaken in the absence of proper tools, test equipments or more recent revision of the manual which is clearly and thoroughly understood.

NOTICE

There is a risk of inverter damage if it is improperly serviced.

Use only accessories and spare parts approved by the inverter manufacturer. Never modify the inverter or its components. Otherwise it will cause loss of any or all warranty rights.

Others

NOTICE

The selected country settings can be changed only by qualified personnel!

Unauthorized modification to country settings should be prohibited. Alternation of the country settings may cause a breach of the type-certificate marking.

WARNING

All safety instructions, warning labels and nameplate on the inverter body:

- **Must be clearly visible;**
- **Must not be removed, covered and pasted.**

2 Product Introduction

2.1 Intended Usage

The inverters, which are 3-phase string inverters without transformer, are crucial units between the PV strings and utility grid in the small-scaled PV power system. The intended usage of the inverter is illustrated in Fig.2-1.

NOTICE

Any other or additional usage is not permitted except the intended usage.

Where the positive or negative terminal of PV strings needs to be grounded, inverter cannot be connected to PV modules.

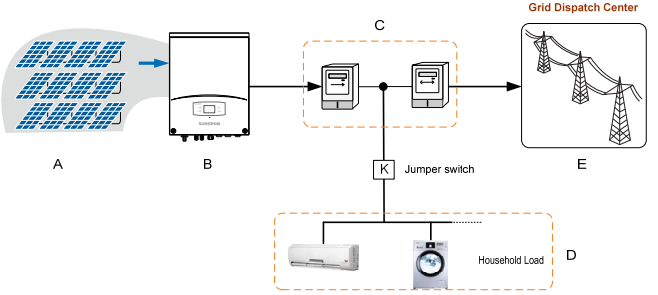


Fig. 2-1 Inverter Application in the PV Power System

Item	Description	Remark
A	PV strings	Monocrystalline silicon, polycrystalline silicon, and thin-film of protection class II without grounding
B	Inverter	SG3KTL-EC, SG4KTL-EC, SG5KTL-EC and SG6KTL-EC
C	Metering device	Meter cupboard with power distribution system
D	Household load	Household appliances
E	Utility grid	TT, TN-C, TN-S, TN-C-S

2.2 Inverter Appearance

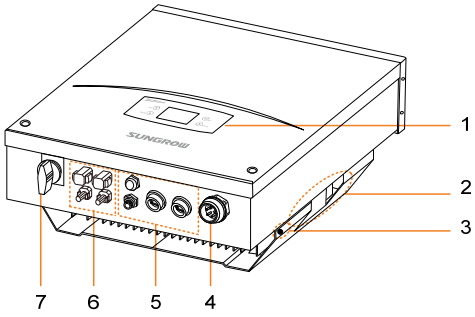


Fig. 2-2 Inverter Appearance

No.	Name	Description
1	LCD display panel	Human-computer interaction interface for looking up running information and configuring parameters.
2	Side grips	The side grips are designed for holding the unit when mounting, moving or servicing the inverter.
3	Second PE terminal	As specified in EN 50178
4	AC connection terminal	Inverter feeds power to utility grid via this terminal.
5	Communication connection terminals	They are RS485 terminal, WiFi terminal, Ethernet communication terminal and DI terminal.
6	DC terminals	There are two pairs of DC terminals for PV input.
7	DC switch	During normal operation it is in "ON" state. It can shut down the inverter in "OFF" position.

2.3 Unpacking and Inspecting

1. Unpack the carton and take out all the accessories.
2. Inspect the inverter for visible damages and check the completeness of the delivery contents according to the inner packing list.
3. Contact your supplier if the delivery is incomplete or damaged. The inverter is unavailable if any damage is detected.

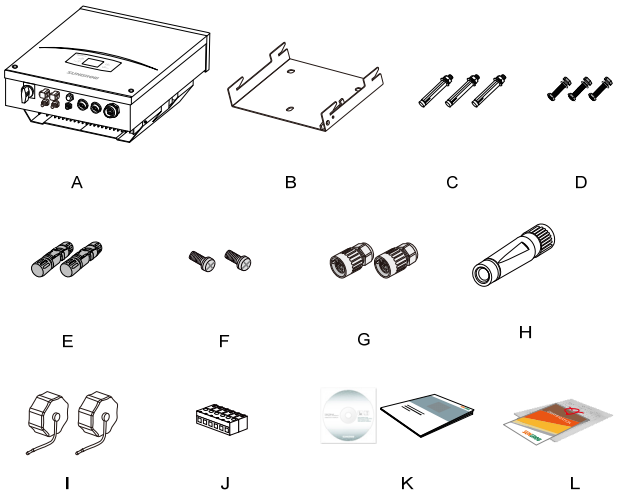


Fig. 2-3 Delivery Contents

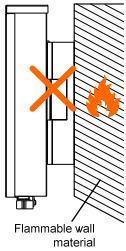
*Image shown here is for reference only. Actual product you receive may differ

Item	Description
A	Inverter.
B	Wall bracket used to mount inverter onto the wall.
C	Expansion bolts for fastening wall bracket onto the concrete wall.
D	Fastener set for installing wall bracket onto the metal frame.
E	PV input connectors, including positive and negative connectors.
F	Two M4x12 screws for second PE connection.
G	Waterproof communication connectors.
H	AC connector.
I	Dust covers for waterproof communication connectors.
J	Six-pole plug.
K	Quick User Manual and 1 CD containing User Manual and other documents.
L	Quality certificates, packing list and product test reports.

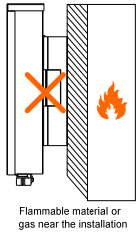
3 Mechanical Installation

3.1 Selecting Installation Location

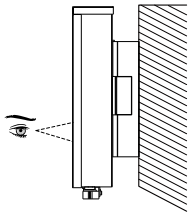
- The inverter must be mounted in a vertical site.
- This requires a firm wall or metal frame.



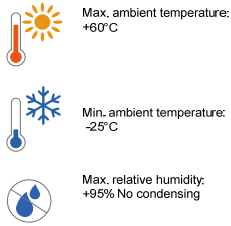
- Mount the inverter at an appropriate site without flammable material and flammable gas nearby.



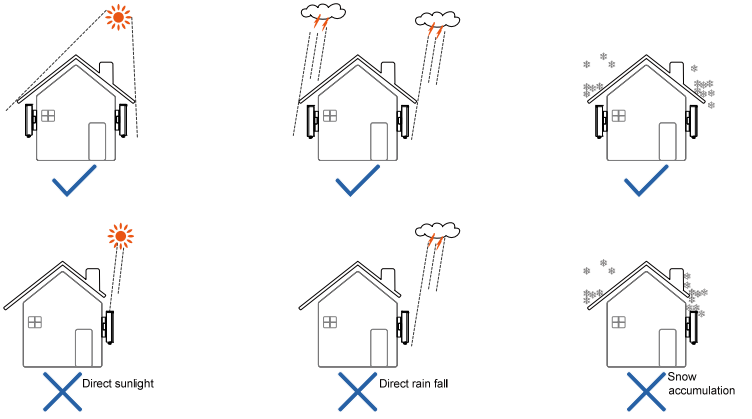
- Install the inverter vertically with upside up at eye level for easily buttons operating and display reading.



- The inverter with IP65 can be installed indoors or outdoors where the ambient temperature and relative humidity meet the requirements.



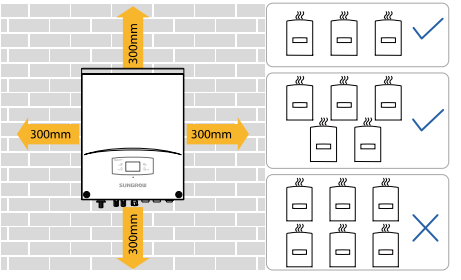
- Avoid exposing the inverter to direct sunlight or rain or snow!



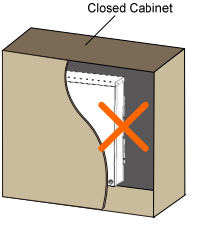
- Take enough space for convection into consideration during installing multiple inverters. It is suggested to position the multiple inverters in a staggered way if necessary.

⚠ CAUTION

The device requires good quality ventilation during operation. System performance loss due to bad ventilation!



- Do not install the inverter in a enclosed cabinet.



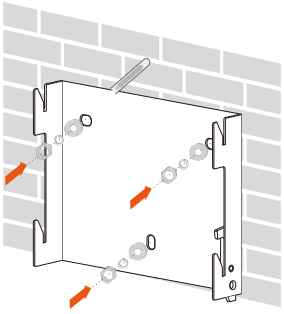
3.2 Installation

1. Move the inverter to the installation site with the help of another person or the lifting device by means of the side grips.

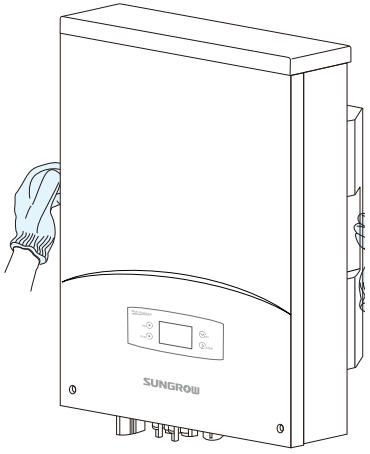
NOTICE

Always keep in mind the weight of the inverter! The Installers should wear gloves to avoid scratches when moving and mounting the inverter.

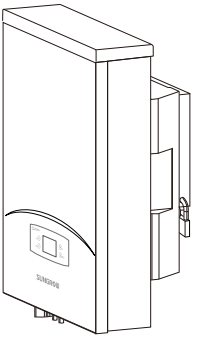
2. Fix the backplate on the wall with appropriate fixing set.



3. Mount the inverter onto the backplate.



4. To protect the inverter from theft, you can lock it to the wall bracket with a padlock.



4 Electrical Connection

DANGER

Death hazards due to high voltage inside the inverter!

Make sure that all the DC and AC cables to the inverter are not live before the electrical work.

Do not turn on the AC or DC circuit breaker until all inverter electrical connections have completed.

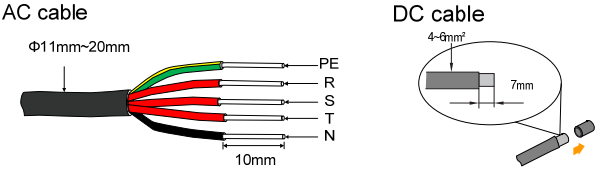
DANGER

Do not open the enclosure when the inverter is under voltage.

There is a risk of inverter damage or personal injury!

4.1 Cables Selection

Cable Type	Conductor size	Recommended conductor size
AC cable	4…10 mm^2(AWG11…AWG7)	---
DC cables	4…6 mm^2(AWG12…AWG10)	---
Second PE Cable	---	6 mm^2
Communication cables	Shielded network cable	---
	DI connection cable	5 cores cable Total diameter: 4…8 mm



4.2 AC Connection

AC Circuit Breaker

An independent three or four-pole circuit breaker for the inverter must be installed at the output side to ensure that the inverter can be securely disconnected under load.

Inverter Type	Specification for AC Circuit Breaker
SG3KTL-EC	10A
SG4KTL-EC	10A
SG5KTL-EC	16A
SG6KTL-EC	20A

NOTICE

- **It is not allowed for several inverters to use the same circuit breaker.**
- **It is not allowed to connect loads between the inverter and circuit breaker.**

Connecting Inverter to AC Grid

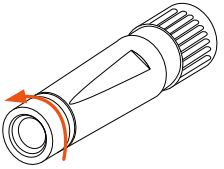
DANGER

Danger to human life due to high voltage inside the inverter!

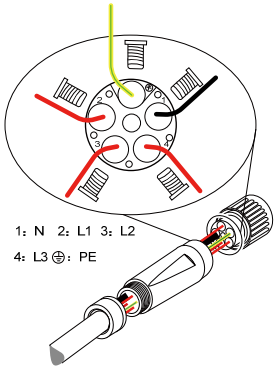
Make sure that all the DC and AC cables to the inverter are not live before the electrical work.

Do not turn on the AC circuit breaker until all inverter electrical connections have completed.

1. Unscrew the water-proof terminal in the following direction.



2. Insert appropriate size AC cables into the water-proof terminal.
3. Strip off insulation layer of all AC cables. The length of strip insulation is approximately 10 mm.
4. Fix all cables ends to the corresponding terminals with the torque of 1 N·m according to markings on the connector, especially "PE" cable. If a phase wire is connected to the "PE" terminal, it may permanently destroy the inverter.



5. Pull cables outwards to confirm whether they are installed firmly.
6. Combine the two front-end parts together with the torque of 2 N·m.
7. Tighten the water-proof terminal with the torque of 5 N·m in opposite directions.
8. Make sure the AC and DC circuit breakers are disconnected.
9. Connect phase cables and "N" cable to AC circuit breaker.
   - Plug AC connector to corresponding AC terminals.
   - Screw AC cables except the "PE" cable to the AC circuit breaker.
10. Connect AC circuit breaker to utility grid.
11. Make sure all AC cables are firmly installed.

4.3 DC Connection

4.3.1 PV Mode Configuration

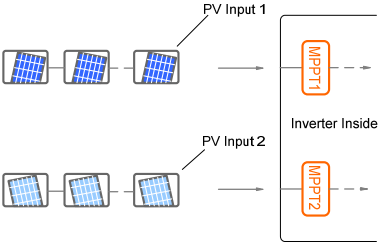
The inverter has two PV inputs and they can be configured in independent mode or parallel mode. Refer to the user manual for an appropriate mode selection.

NOTICE

In independent mode, when there is only one PV input, the other input may produce induced voltage. DO NOT touch the unused DC terminals.

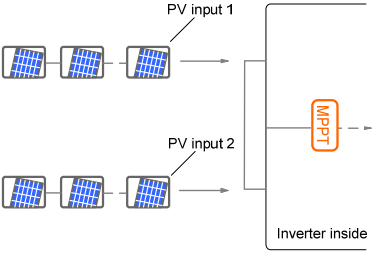
Independent Mode

For independent mode, the two PV inputs work independently, each with its own MPPT. Therefore the two PV inputs can be different from each other in PV module types, numbers of PV panels in PV string, tilt angles and orientation angles of PV modules.



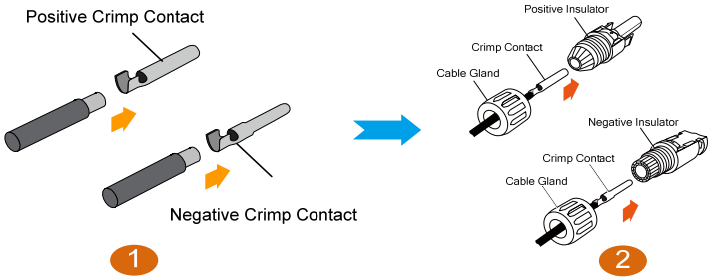
Parallel Mode

For parallel mode, all PV strings with the same type, the same number of PV panels, identical tilt and identical orientation in series can be connected to the same single input area. Two trackers are configured in parallel by Y-type cable connector.

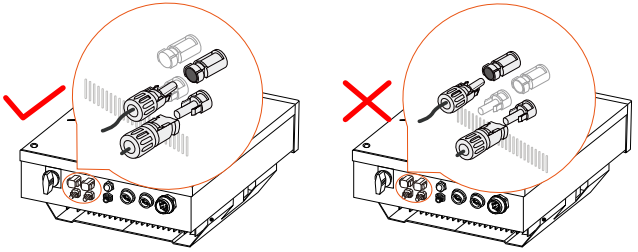


4.3.2 DC Cables Connection

1. Assemble the DC plug-in connectors.



2. Check the polarity of the PV input before PV input connection.
3. Plug the positive and negative DC connectors into PV terminals underneath the connection cabinet until there is an audible sound.



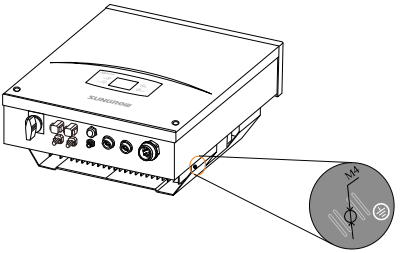
4. For parallel mode, the terminals in DC1 input and DC2 input must be short-circuited by Y-type cable connector.
5. Seal the unused DC terminals with the terminal caps.

4.4 Second Protective Earth Terminal

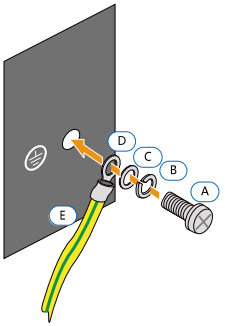
The inverter is equipped with second protective earth terminal as specified in EN 50178.

4.4.1 Second PE Terminal

There is a second PE terminal on the right side of the inverter. You may choose to connect the PE.



4.4.2 Second PE Connection



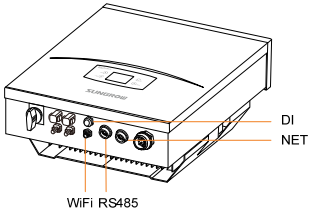
Item	Description	Specification
A	Screw	M4×12 mm
B	Spring washer	-
C	Washer	-
D	Cable socket	-
E	Yellow-green cable	6-10 mm^2 copper wire or 10-16 mm^2 aluminum wire

*The connection parts are not included in the delivery scope.

4.5 Communication Connection

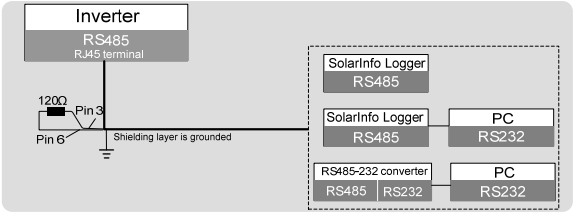
4.5.1 Interfaces Overview

All communication terminals are located on the bottom of the inverter.



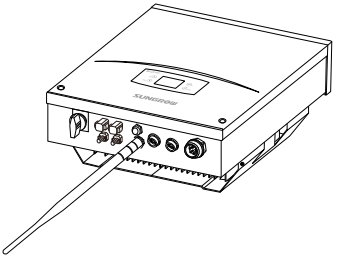
4.5.2 RS485 Communication Connection

The inverter has been terminated with a resistor of 120Ω. The shielding layer of network cable should be single-point grounded.



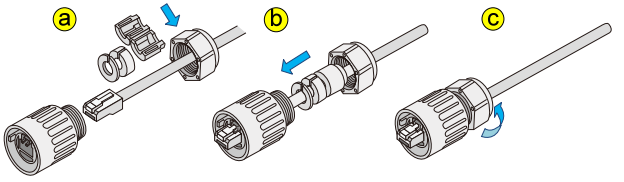
WiFi Connection

1. Unscrew the waterproof lid from the WiFi terminal.
2. Screw the WiFi antenna to WiFi terminal with appropriate torque.

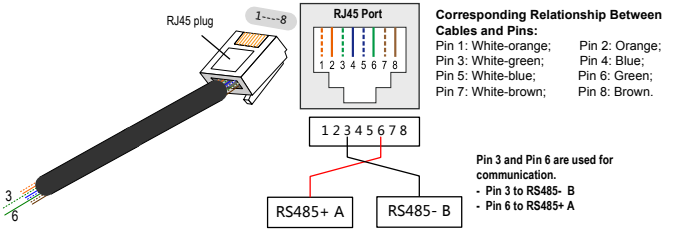


RS485 Connection

1. Remove the waterproof lid from the RS485 port.
2. Insert the RJ45 plug into the front plug connector until it makes a clicking sound, install the plastic rings then tighten the cable gland with appropriate torque.



3. Pull cable outwards to confirm whether it is fastened firmly.
4. Plug the other end of network cable into the socket of the switch or router, connect the switch or router to a PC.
5. As for the wires which connect to the terminating resistor or logging devices, use a Network cable crimping plier to strip the insulation layer and connect the RS485 A and B cables (3 and 6) to terminating resistor or data logging device or RS 485-232 converter.



6. Connect the other devices. Refer to the device manual for the definition of the communication port.
7. Verify the communication connection and configure the communication parameters.

4.5.3 Ethernet Communication Connection

The Ethernet communication can be connected either in single or star topology.

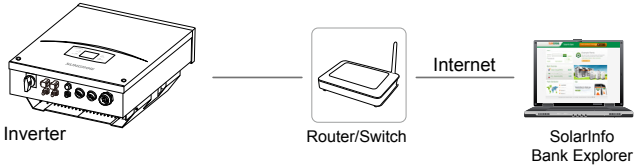


Fig. 4-1 Single inverter Ethernet connection

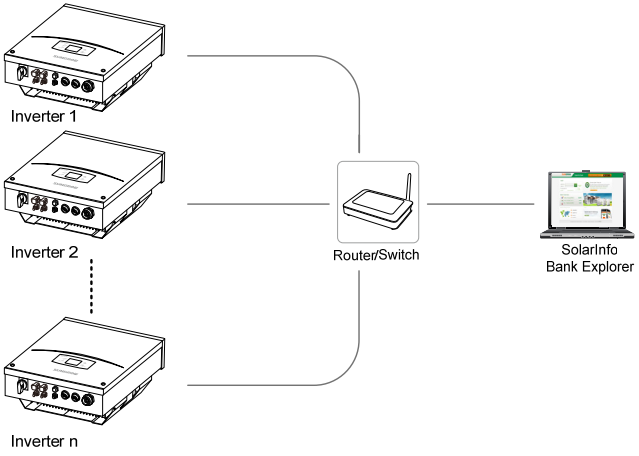


Fig. 4-2 Inverters Ethernet connection in star topology

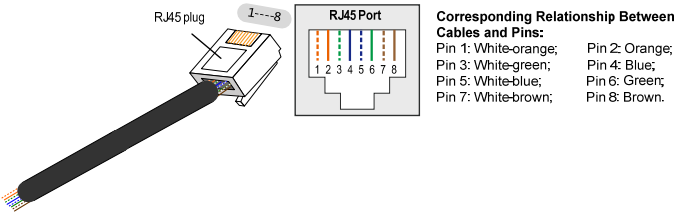
The star topology network connection is recommended for optimal operation.

The maximum number of inverters connected depends on switch, router and other factors. Please refer to switch's or router's manual to obtain the limit.

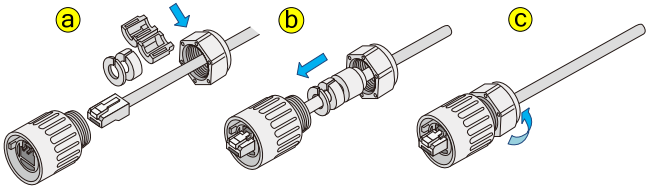
The Network cable should be less than 100 m.

Ethernet Connection Procedure

1. Remove the waterproof lid from the NET port.
2. Use the Ethernet crimper to crimp the cable and connect cable to RJ45 plug according to TIA/EIA 568B.



3. Insert the RJ45 plug into the front plug connector until it makes a clicking sound. Install the plastic rings then tighten the cable gland with appropriate torque.



4. Repeat step 1 to step 3 to connect the other inverters with Network cables.
5. Pull cables outwards to confirm whether they are fastened firmly.
6. Plug the other end of network cables into the socket of the switch or router, connect the switch or router to a PC. Refer to the device manual for the definition of the communication port.
7. Verify the communication connection and configure the communication parameters.

4.5.4 Power Control Configuration

There is a terminal (DI) located on the bottom of the inverter for power control configuration.

The inputs of DI can be used to connect a ripple control receiver for active power control.

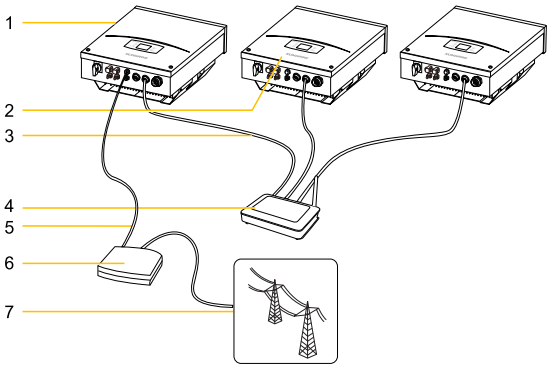


Fig. 4-3 Connecting the ripple control receiver for inverters with Ethernet connections

In the Ethernet communication connection, only one inverter can be set as master inverter, others shall be set as slave inverters.

Item	Description
1	Master inverter
2	Slave inverter
3	Ethernet cable
4	Router
5	5-conductor connection at digital input
6	Ripple control receiver
7	Grid

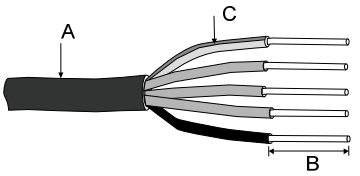
Power Control Settings

Connect the cables to DI terminal block according to the terminal assignment.

DANGER

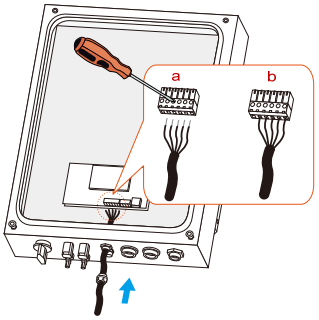
Make sure that all DC or AC cables connected to the inverter are not live before the electrical work.

1. Loosen all screws on the inverter's lid and remove the lid.
2. Remove the waterproof lid from DI cable gland and loosen the Thread-Lock Sealing Nut.
3. Lead the DI connection cable through the Thread-Lock Sealing Nut and the cable gland.
4. Strip off the DI cable as shown below.

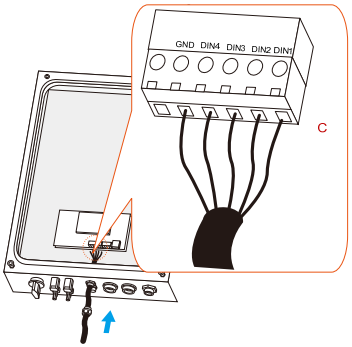


No.	Description	Remark
A	Protective layer	Accepted cable external diameter ranges from 4 mm to 8 mm.
B	Length of insulation to be stripped off	7 mm
C	Length of protective layer to be stripped off	60 mm

5. Assemble the individual insulated conductors into corresponding pins of the six-pole plug and pull cable outwards to confirm whether they are installed firmly.



6. Insert the six-pole plug into the DI connection socket according to markings shown below.



7. Fasten the Thread-Lock Sealing Nut to the inverter.

NOTICE

Please make sure before fasten the lid:

- **To verify whether it's necessary to apply glue on the cut;**
- **The rubber strip is fully filled with air.**

8. Fasten the lid to the inverter by screwing the screws.
9. Connect the ripple control receiver to the inverter according to the terminal assignment.

5 Commissioning

Before starting the inverter, make sure all installation and connections are completed and verified.

5.1 Description of Button Function

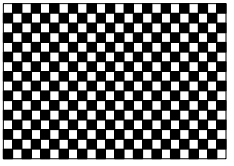
Inverter offers two buttons for the user to look up the running information and configure parameters settings. The two buttons have multiple functions. Please refer to Tab. 5-1 before any operation onto the inverter.

Tab. 5-1 Button Functions

Button	Operation	Description
ESC	Press less than one second	Move upwards or downwards, or increase setting value. Hereinafter, it is referred to as "Press ∨".
	Press more than one second	Return to the previous menu or cancel the command. Hereinafter, it is referred to as "Press **ESC**".
ENTER	Press less than one second	Move left or right, or turn pages. Hereinafter, it is referred to as "Press ➤".
	Press more than one second	Enter into the sub-screen or confirm the command. Hereinafter, it is referred to as "Press **ENTER**".

5.2 Commissioning Procedure

1. Connect the external AC circuit breaker.
2. Rotate DC switch to "ON" position.
   Supposed that there is sufficient sunlight and DC power, the inverter begins to initialize and the LCD is activated to setup the interface. Press buttons to configure initial inverter parameters.



NOTICE

Only qualified personnel are allowed to adjust or set parameters related to system protection functions.

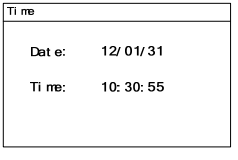
3. Country selection screen will prompt. Perform country settings with the right two buttons. Detailed button functions can be found in "**5.1 Description of Button Function**". **Press** ▼ to choose country code. Confirm the settings by **Pressing ENTER**.

Refer to the user manual for country code explanation. If the inverter is installed where the country code is not included, please choose the item "Other" and manually set the protective parameters.

⚠ CAUTION

If the country code is not set correctly during commissioning, reset the protective parameters. There may be faults if otherwise.

4. Configure time according to the local time. Time setting is very important, which directly affects data logging. **Press** ➤ to move cursor and **Press** ▼ to scroll up time value. Confirm the settings by **Pressing** ENTER. The date format is **YY/MM/DD**. **YY, MM**, and **DD** stand for year, month, and day respectively. The time format is **hh/mm/ss**. **hh**, **mm**, and **ss** stand for hour, minute, and second respectively.



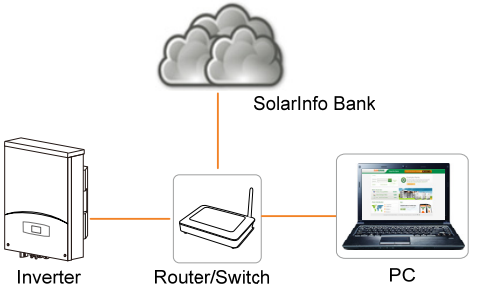
If inverter's commissioning fails, the "FAULT" indicator will be lit and "fault" will occur on the display. **Press** ▼ to view "current fault" information. Remove the existing malfunction and then repeat starting up inverter as the above procedures.

6 Viewing PV Plant Information

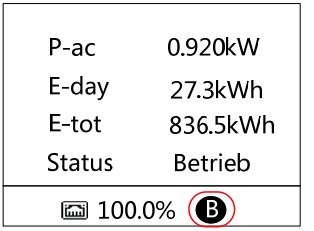
After registering on the webpage www.solarinfobank.com, user can view PV plant information through the PC or smartphone. User can also view PV plant information through the APP of SolarInfo Bank installed into the smartphone.

6.1 SolarInfo Bank Connection

1. Connect the communication cable between router and inverter, and connect the communication cable between router and PC.



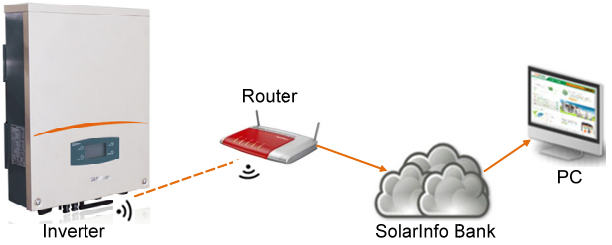
2. Wait for about 10 minutes and the icon as shown in the figure below will appear on the main LCD display interface. The SolarInfo Bank connects to the inverter successfully.



3. Open the explorer, input the webpage www.solarinfobank.com in the address bar. Register and then visit SolarInfo Bank. For details, see "**6.3 Registration and Adding PV Plant**".

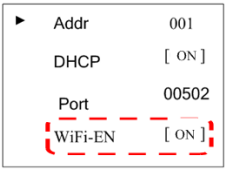
6.2 SolarInfo WiFi Connection

The WiFi antenna can increase the transmission distance and strength of WiFi signal. Bind the WiFi to a router. When the router can access the Internet, the running information of inverter can be uploaded to SolarInfo Bank server through the router. Register and add PV plant on the webpage www.solarinfobank.com. Then you can inquire the running information of the corresponding inverter.

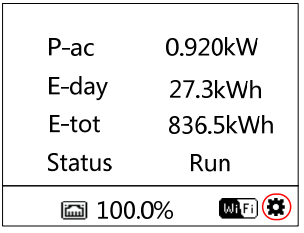


Take iPhone 4 and Netgear router for example in the following configuration.

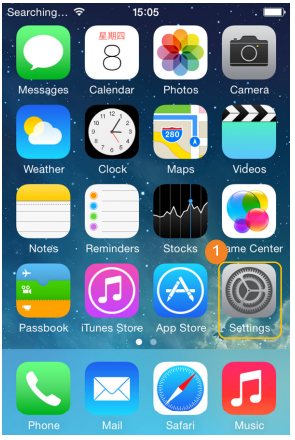
1. Set the **WiFi-EN** to **ON** through the inverter LCD display. For detailed information, please refer to LCD operation in the User Manual.



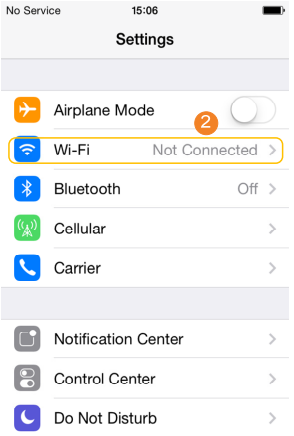
2. The setting icon shown in the figure below will appear on the main LCD display screen. Then you can start to configure parameters.



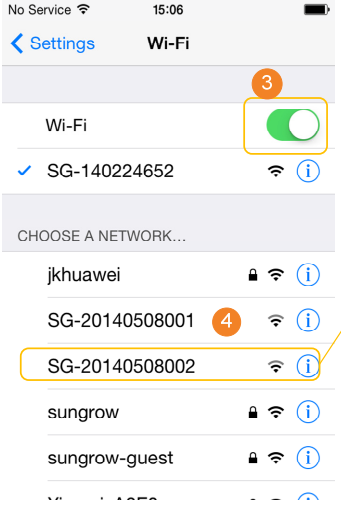
3. Enable the WiFi function of smartphone and choose the device named "SG-XXXXXXXX" in network list (XXXXXXXX represents the serial number of inverter). The serial number is the S/N information marked on the nameplate. The following figure takes inverter 20140508002 for example.

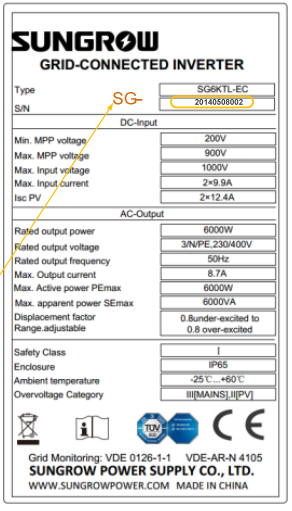


Click Setting



Choose Wi-Fi





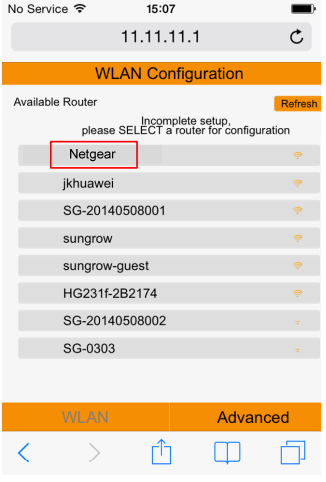
Select corresponding device according to the SN.

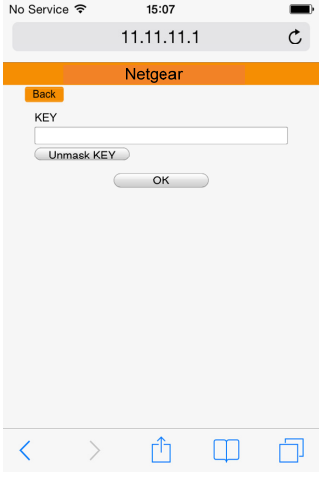
4. Open the browser, input “11.11.11.1” into the address bar and press Enter. Routers around will be listed.

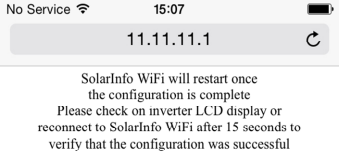
NOTICE

The router name cannot be longer than 31 characters.

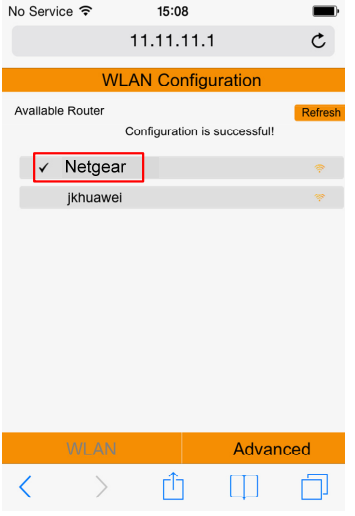
5. Choose the Netgear router and input the router-visiting password. Then click OK. SolarInfo WiFi will restart once the configuration is completed, as shown in the following figures.



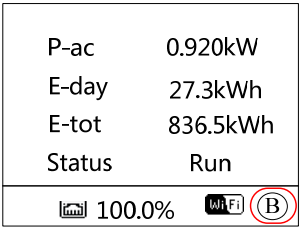



No Service
15:07
11.11.11.1
SolarInfo WiFi will restart once
the configuration is complete
Please check on inverter LCD display or
reconnect to SolarInfo WiFi after 15 seconds to
verify that the configuration was successful

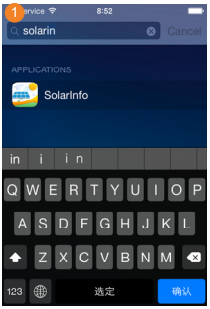
6. 10s after the configuration is finished, perform Step 2 and Step 3 again to make sure the configuration is succeeded. The following figure shows that the router Netgear is successfully connected. Repeat the steps above if the configuration is not succeeded.



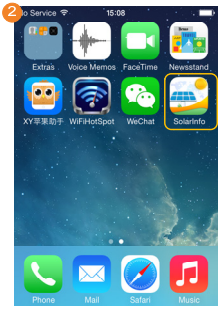
7. Wait for longest 30s after the configuration. The WiFi icon will stop blinking if the configuration is successful. Otherwise it will always blink and you should reconfigure the parameters.
8. If the router can visit the Internet, the setting icon will change to B icon, as shown in the figure below. The SolarInfo Bank is connected successful and the device information can be uploaded to it.



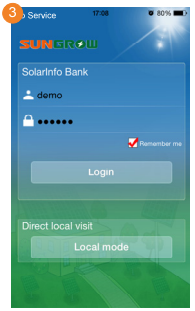
9. Search for SolarInfo Bank, download and install the APP into your smartphone. Open the APP and log in, and then you can view the plant information through the APP of SolarInfo Bank.



Search for SolarInfo Bank and install



Open SolarInfo Bank

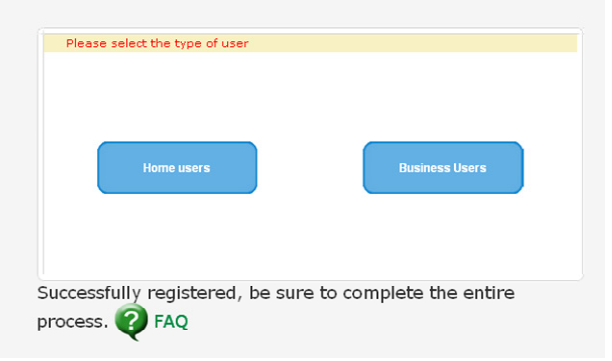


Input the name and password to login

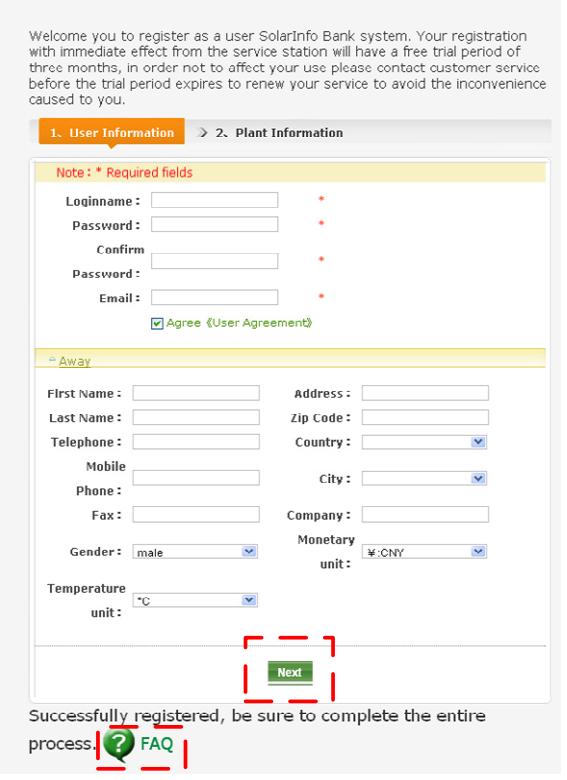
6.3 Registration and Adding PV Plant

1. Open a browser and enter the URL www.solarinfobank.com to view the homepage of SolarInfo Bank. Register a new user by clicking "Register".

2. The registration interface as shown below will appear .User can select Home user or Business user according to real situation. Select Home user for residential use. Select Business user for commercial use.

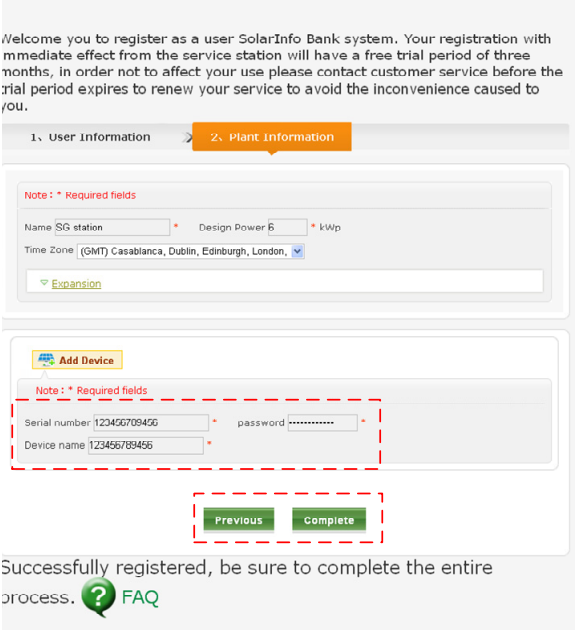

Please select the type of user
Home users
Business Users
Successfully registered, be sure to complete the entire process.
FAQ

3. Fill in user information as shown in the following figure and click Next.

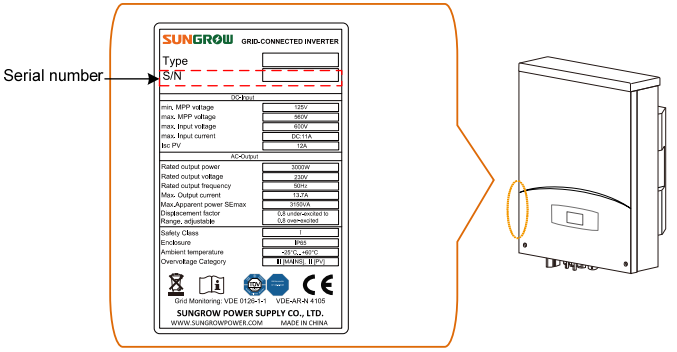

Welcome you to register as a user SolarInfo Bank system. Your registration with immediate effect from the service station will have a free trial period of three months, in order not to affect your use please contact customer service before the trial period expires to renew your service to avoid the inconvenience caused to you.
1、User Information
2、Plant Information
Note : * Required fields
Loginname :
Password :
Confirm Password :
Email :
Agree 《User Agreement》
Away
First Name :
Last Name :
Telephone :
Mobile Phone :
Fax :
Gender :
male
Address :
Zip Code :
Country :
City :
Company :
Monetary unit :
¥ :CNY
Temperature unit :
°C
Next
Successfully registered, be sure to complete the entire process.
FAQ

The Country, City, Monetary unit and Temperature unit can be selected from the drop-down list. For other items, user must fill in manually.

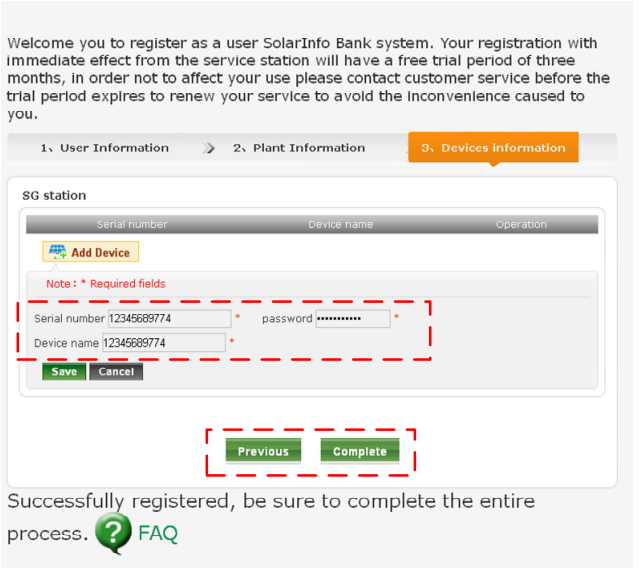
4. Enter the Plant Information interface. Click Complete to finish the registration and click Previous to return to the precious page to modify information. If the Home users is selected in step 2, the registration process is finished by now.


Welcome you to register as a user SolarInfo Bank system. Your registration with
mmediate effect from the service station will have a free trial period of three
months, in order not to affect your use please contact customer service before the
rial period expires to renew your service to avoid the inconvenience caused to
ou.
1、User Information
2、Plant Information
Note : * Required fields
Name SG station
Design Power 6
kWp
Time Zone (GMT) Casablanca, Dublin, Edinburgh, London,
Expansion
Add Device
Note : * Required fields
Serial number 123456789456
password
Device name 123456789456
Previous
Complete
Successfully registered, be sure to complete the entire
process.
FAQ

- Time Zone must be selected according to the installation place of the inverter. If user does not know the local time zone, please check in Google Map.
- If new devices are added, please fill in the pertinent information in the following format:
  - **Serial number**: the serial number shown on the device nameplate.
  - **Password:** the same as the serial number and should be input manually.
  - **Device name**: same as the device serial number by default and can be changed by the user.



5. Proceed as follows to fill in the Device Information if the Business users is selected in step 2.


Welcome you to register as a user SolarInfo Bank system. Your registration with immediate effect from the service station will have a free trial period of three months, in order not to affect your use please contact customer service before the trial period expires to renew your service to avoid the inconvenience caused to you.
1、User Information
2、Plant Information
3、Devices information
SG station
Serial number
Device name
Operation
Add Device
Note：* Required fields
Serial number 12345689774
password
Device name 12345689774
Save
Cancel
Previous
Complete
Successfully registered, be sure to complete the entire process.
FAQ

The format of Serial number, Password, and Device name are the same as that in Step 4. Click Complete to finish the registration and click Previous to return to the precious page to modify information.

6. Refreash the webpage www.solarinfobank.com, then you can see the data of the corresponding PV plant.

7 Appendix

Parameters	SG3KTL-EC	SG4KTL-EC	SG5KTL-EC	SG6KTL-EC
Input Side Data				
Max. PV input power	3191 W	4255 W	5265 W	6312 W
Max. PV input voltage	1000 V		1000 V	
Startup voltage	200 V		250 V	
Nominal input voltage	610 V		610 V	
MPP voltage range	140...900 V		200...900 V	
MPP voltage range for nominal power	160...800 V	210...800 V	280...800 V	320...800 V
No. of MPPTs	2			
Max. number of PV strings per MPPT (DC1/DC2)	1/1			
Max. PV input current (DC1/DC2)	19.8A(9.9A/9.9A)			
Max. current for input connector	12 A			
Short-circuit current of PV input (DC1/DC2)	24.8 A(12.4 A/12.4 A)			
Output Side Data				
Nominal AC output power	3000 W	4000 W	5000 W	6000 W
Max. AC output apparent power	3000 VA	4000 VA	5000 VA	6000 VA
Max. AC output current	4.4 A	5.8 A	7.3 A	8.7 A
Nominal AC voltage	3/N/PE, 230/400 Vac			
AC voltage range	310…480 Vac (May vary as per corresponding country's grid standard)			
Nominal grid frequency	50 Hz			
Grid frequency range	45…55 Hz (May vary as per corresponding country's grid standard)			
THD	< 3% (Nominal power)			
DC current injection	<0.5% In			
Power factor	>0.99 @default value at nominal power, (adj. 0.8 overexcited to 0.8 underexcited)			
Protection				
Anti-islanding protection	Yes			

Parameters	SG3KTL-EC	SG4KTL-EC	SG5KTL-EC	SG6KTL-EC
DC reverse connection protection	Yes			
AC short circuit protection	Yes			
Leakage current protection	Yes			
DC switch	Integrated			
DC fuse	No			
Overvoltage protection	III			
System				
Max. efficiency	98.0%	98.1%	98.1%	98.1%
Max. European efficiency	96.2%	96.8%	97.2%	97.3%
Isolation method	Transformerless			
Ingress protection rating	IP65			
Night power consumption	<1 W			
Operating ambient temperature range	-25℃...60℃(> 45℃ derating)			
Allowable relative humidity range	0...95%, non-condensing			
Cooling method	Natural cooling			
Noise	≤29 dB			
Max. operating altitude	2000 m			
Display	Graphic LCD			
Communication	Ethernet, RS485(RJ45 connector), 4×Digital Inputs, WiFi			
DC connection type	MC4			
AC connection type	Plug and play connector			
Certification	VDE0126-1-1			
	EN62109-1,EN62109-2			
	G83/1			
	VDE-AR-N-4105			
Mechanical Data				
Dimensions (W×H×D)	403 mm×518 mm×190 mm			
Mounting method	Wall bracket			
Weight	22 kg			

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Specifications are subject to changes without advance notice.